Job Specific Environmental Awareness Training — User Waste Generator

LS-ENV-USER 041902 K:\erothman\EMS\exper\tr-user.doc

Course Objective: The generation of hazardous or radioactive waste at NSLS has been designated a significant environmental aspect and is subject to specific controls. This course has been designed to provide you with the information that you need know to protect the environment and to meet Laboratory and RCRA regulations for handling hazardous wastes. The contents of this training have been extracted from the NSLS PRM and BNL Subject Area.

Authorization Requirements: The following requirements must be met for all experiments that generate RCRA hazardous wastes before the beamline is enabled and the experiment is allowed to begin.

- All participants must complete this Environmental Awareness training.
- At least one researcher participating in the experiment must be designated to accept responsibility for ensuring compliance with BNL waste regulations and completing BNL RCRA Waste Generator training.

Operational Controls: RCRA Wastes are to be stored near their point of generation in a designated Satellite Accumulation Area (SAA) until ready for transfer to the NSLS 90-day Storage Area. The SAAs are located and posted in the setup laboratories; each has an assigned manager. You must put your waste containers in one of the SAAs as the wastes are accumulated. RCRA wastes stored in a Satellite Accumulation Area must meet the following requirements.

- Waste containers must be closed at all times except when making additions.
- Containers must be labeled to identify the contents as waste (labels are available in the 90-day Storage Area).
- The container must be kept in one of the SAA secondary containment trays and kept away from sinks or drains.
- Incompatible materials may not be stored in the same tray.
- Decisions about mixing must be made in consultation with the NSLS Safety Engineer.

The RCRA trained person for this experiment must transfer wastes to the NSLS 90-day Storage Area at the end of the experiment. Consult with your beam line Local Contact, an Operations Coordinator or someone from the ESH staff if you have questions.

Response to Leaks: Spills of chemicals or chemical wastes must be immediately addressed to prevent injury to personnel or releases to the environment. Be careful! Report even minor spills to the NSLS Operations Coordinator or to the NSLS Control Room Operator (X2550). Report the material, volume, and location of the spill. Spill response kits are located in various parts of the building and should be used to prevent release to drains and clean minor spills. Major leaks should be secured to the extent possible and reported to the Lab emergency response number x2222 as soon as possible so that BNL personnel can be prepared for potential impacts at the Sewage Treatment Plant.

Your Role and Responsibility As a user involved in an experiment generating hazardous wastes, it is important that you follow the procedures and other instructions established by NSLS and take prompt action in the event of spills. Be attentive to the information available through postings, email, and on the web and seek help when needed.

Potential Regulatory and Environmental Impacts Work involving generation of RCRA hazardous wastes must comply with Federal requirements established by the U.S. Environmental Protection Agency, and is subject to enforcement action by the EPA and New York State Department of Environmental Conservation. The inadvertent or unauthorized release of chemicals into a sink or floor drain, even in small quantities (< 100 ml), could result in violations of BNL's discharge permits and can lead to large fines and costly remediation.

Pollution Prevention and Waste Minimization Disposal of hazardous wastes is costly and time consuming. Please make every effort to minimize the quantity of chemicals you bring to the NSLS and the quantity of waste materials generated.

Print Name	Sign Name	Life/Guest Number	Date

Signature conveys that you have read and understand this information.

NSLS Environmental Management Training

Background Environmental and hazardous waste management regulations are among the most sensitive and visible issues in the American society. At BNL, these regulations are indisputably the most sensitive topic within the ESH arena since environmental releases and the perception of poor waste handling practices were at the heart of the AUI discharge by DOE and in the development of the strong management emphasis on these issues. In light of the high visibility and sensitivity to these issues, BNL management committed to the development of an Environmental Management Program that met all the requirements of ISO 14001, an international organization which has adopted standards for many types of programs, including environmental management.

A key issue within ISO 14001 is the identification of all activities at a facility that are associated with significant environmental aspects. All activities involving a significant aspect are to be managed and controlled to ensure that no adverse environmental impact results. As a part of that program, all personnel whose work involves a significant environmental aspect[1] will be provided specific environmental awareness training relating to their duties.

There are several work activities at NSLS that are involved with our facilities' significant environmental aspect - waste generation. These activities are:

- Regeneration of process water mixed bed deionizing and cooling water maintenance
- Machine shop operations
- Photographic dark room operations
- Vacuum pump maintenance
- Electrical/mechanical assembly
- Experimental Program
- 90 Day/Satellite Area Operation
- Silicon Crystal Etching

For each of these activities, job specific training has been developed to ensure knowledge of applicable requirements that should be followed to properly control the significant environmental aspect.

[1] Significant environmental aspects have been defined at BNL as involving any of the following issues:

- Generation of any amount of industrial, hazardous, radioactive, or medical wastes
- Air or liquid effluents or emissions exceeding defined values
- Consumption of power or natural resources above certain thresholds
- Storage or use of chemicals or radioactive material above certain thresholds